

Applicant : Chi Mei Optoelectronics Corporation
Serial No. : 10/567,068
Filed : February 3, 2006
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Attorney Docket: 14509-0138US1 / P080486SEXLUS

Amendments to the Drawings:

The attached replacement sheet of drawings includes changes to Fig. 2 and replaces the original sheet including Fig. 2.

In Figure 2, the text “PRIOR ART” has been added.

Attachments following last page of this Amendment:

Replacement Sheet (1 page)

REMARKS

The comments of the Applicant below are each preceded by related comments of the Examiner (in small, bold type).

4. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edwards et al (200210054005), hereinafter Edwards, in view of Park et al (6,160,535) hereinafter, Park.

5. In regards to claim 1, Edwards discloses the limitations of an active matrix display device comprising a row and column array of picture elements [0001], sets of row and column address conductors for selecting rows of picture elements (fig. 7 18 and 19) and providing data signals to the picture elements of a selected row respectively (fig. 1 25 and 21), drive means for supplying selection signals and multi-bit digital data signals [0002] respectively to the set of row address conductors and the set of column address conductors (fig. 7 18 and 19), in which the multi-bit digital data signals supplied to the column address conductors are converted into analogue voltage [0001-0003, 0006] levels for use by the picture elements by a plurality of serial charge redistribution digital to analogue conversion means [0003, 0009-0012], each conversion means comprising at least first and second capacitances interconnectable by at least one conversion switch (fig. 7 (31A and 31 B)) and between which charge is shared, and in which the first and second capacitances of a conversion means are provided by the capacitances of two column address conductors [0021-0028] Edwards differs from the claimed invention in that Edwards does not expressly disclose wherein the picture elements in a column are of the same colour and adjacent columns of picture elements are of different colours, and wherein the first and second capacitances of a digital to analogue conversion means comprise two column address conductors that are both associated with the same colour of picture elements.

However, Park teaches a system and method wherein picture elements in a column are of the same colour and adjacent columns of picture elements are of different colours (fig. 3A S1 is R and adjacent in S2 G and fig. 4 R'', G'' and B''), (col. 3, lines 13- 37 of Parks).

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify Edwards such that the picture elements in a column are of the same colour and adjacent columns of picture elements are of different colours as taught by Parks in order to drive a color display with reduced power consumption, since each column of color can be addressed together, as stated in (col. 2, lines 22-45 of Park) and to decrease circuit complexity for ease of manufacturing.

Therefore, Edwards as modified by Park teaches and wherein the first and second capacitances of a digital to analogue conversion means (fig. 7 31A and B, 19, 18 [001-0031 Edwards] comprise two column address (fig. 7 19 A and B Edwards) conductors that are both associated with the same colour (fig. 4. R'' for R11 and R12 Parks) of picture elements (fig. 3A S1 is R and adjacent in S2 G, col. 3, lines 13-37 of Parks).

Edwards and Park do not describe and would not have made obvious "wherein the picture elements in a column are of the same colour and adjacent columns of picture elements are of different colours, and wherein the first and second capacitances of a digital to analogue conversion means comprise two column address conductors that are both associated with the same colour of picture elements," as recited in claim 1.

The Examiner acknowledges that Edwards does not disclose this limitation. The Examiner points to Park as disclosing what is missing in Edwards. The Applicant disagrees.

Park merely discloses an LCD panel in which the picture elements in a column are of the same colour and adjacent columns of picture elements are of different colours. Park does not disclose or suggest that the first and second capacitances of a digital to analogue conversion means comprise two column address conductors that are both associated with the same colour of picture elements, as recited in claim 1.

Edwards discloses using column electrodes of adjacent columns as two capacitors of a charge distribution digital to analogue converter. A person of ordinary skill in the art, upon reading Edwards and Park, may have modified Edwards' display device to use Park's technique such that adjacent columns of picture elements are of different colours. The modified Edwards display device may use column electrodes of adjacent columns as the two capacitors of the charge distribution digital to analogue converter, in which the adjacent columns of picture elements are of different colours. There is no reason for the person of ordinary skill in the art to further modify the modified Edwards display such that the charge distribution digital to analogue converter uses two column electrodes that are not in adjacent columns and are associated with the same colour. Therefore, Edwards and Park do not disclose or suggest "wherein the first and second capacitances of a digital to analogue conversion means comprise two column address conductors that are both associated with the same colour of picture elements," as recited in claim 1.

Claim 1 is patentable for at least the above reasons.

All of the dependent claims are patentable for at least the reasons for which the claims on which they depend are patentable.

Any circumstance in which the applicant has addressed certain comments of the examiner does not mean that the applicant concedes other comments of the examiner. Any circumstance in which the applicant has made arguments for the patentability of some claims does not mean that there are not other good reasons for patentability of those claims and other claims. Any circumstance in which the applicant has amended or canceled a claim does not mean that the applicant concedes any of the examiner's positions with respect to that claim or other claims.

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Please apply any charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: February 9, 2010_____

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